CALIFORNIA HIGH-SPEED RAIL AUTHORITY

BRIEFING: MAY 2-3, 2012, BOARD MEETING AGENDA ITEM #8

TO: **Dan Richard and Authority Board Members**

FROM: **C. Michael Gillam, Deputy Program Director – Southern California**

DATE: **May 2-3, 2012**

RE: **Palmdale to Los Angeles Supplemental Alternatives Analysis - Sylmar to Palmdale Subsection**

Discussion

This Palmdale to Los Angeles Supplemental Alternatives Analysis (SAA) documents additional evaluation, development and refinement of design options in the portion of the HST project between Sylmar and Palmdale that are recommended for further study through the environmental process. This summary paper provides background on the need for the SAA; outlines community input and concerns; and documents the recommendations for alignment alternatives to be further studied. The alternatives evaluated in the SAA refine the alignment alternatives to address concerns and mitigate potential impacts in the Acton/Agua Dulce and Sand Canyon areas identified by public input and engineering review following the preliminary alternatives analysis process.

Background

The Palmdale to Los Angeles High-Speed Train (HST) section Preliminary AA Report, issued by the California High-Speed Rail Authority (Authority) in July 2010, was updated by the Palmdale to Los Angeles HST section Supplemental AA Report issued by the Authority in March 2011. The March 2011 Supplemental AA Report evaluated the subsections from Los Angeles Union Station (LAUS) to Sylmar, and there have been no further changes to those subsections. This Supplemental AA focuses solely on Sylmar to Palmdale divided into two subsections, the Santa Clarita subsection from Sylmar to Lang Station, and the Palmdale subsection from Lang Station to Palmdale. Refer to Fig. SP-1.

At the March 3, 2011 Board meeting, during the presentation of the SAA for Los Angeles to Sylmar, it was discussed that the Sylmar to Palmdale subsections would be brought to the board at a later date.

Community Input and Concerns

During the past several months, the Palmdale to Los Angeles team has met with stakeholders from Sylmar to Palmdale to hear their concerns and identify potential modifications. Concerns raised at these meetings include connectivity, noise/vibration, eminent domain, grade crossings, future development plans, visual impacts and impacts to wildlife, each of which will be considered in greater detail during the environmental review and/or design refinement processes. Specific concerns raised by communities or stakeholders are as follows:

- **City of Santa Clarita**

  Santa Clarita city staff members are concerned about impacts to their community associated with the high-speed train. Staff feels that such impacts are not accompanied by commensurate benefits. The city staff is also concerned about potential substantial impacts to the proposed Vista Canyon development, which the Preliminary AA alignment crosses.

  The city staff is interested in station connectivity and identifying how residents will access a HST system via current Metrolink stations.

- **Towns of Acton and Agua Dulce**

  The Acton and Agua Dulce stakeholders' concerns include potential noise and visual impacts, impacts to schools, and quality of life changes. They question the decision eliminating the Soledad Canyon alignment in the Preliminary AA. The project team developed engineering designs for several adjusted alignments suggested by area stakeholders; however, those stakeholders remain concerned about any above-ground alignment in the area.

- **City of Palmdale**

  The city of Palmdale supports an alignment via the Antelope Valley that includes a Palmdale station. The city staff prefers the SR 14 East alignment because it includes a station at the existing Palmdale Transportation Center.

- **Los Angeles County Supervisor Michael D. Antonovich**

  The Supervisor favors an Antelope Valley alignment with a Palmdale station and is eager to see early investments (e.g. grade separations) in the San Fernando Valley move forward.

Alignment Alternatives

Santa Clarita Subsection

Three Alternative Alignments considered but rejected along the Santa Clarita subsection included:

- An alignment was suggested by stakeholders to follow SR 14 through the Sand Canyon area. To do this would either require train speeds below 100mph, not meeting the project purpose and need of providing high-speed rail service, or displace many more residences than the other options
- An alignment was suggested by stakeholders that closely followed Metrolink all the way through the Sand Canyon area. To do this would require train speeds below 100mph, not meeting the project purpose and need of providing high-speed rail service.
- Stakeholders suggested extending the tunnel by two miles through Sand Canyon. Tunneling is only considered when the topography of the ground makes it necessary or there is a

significant impact which cannot be mitigated in any other way. The impacts from an at-grade/aerial option through Sand Canyon that cannot be mitigated by adjusting the alignment in plan are not sufficiently onerous to make this a reasonable option to consider.

Three Alternative Alignments considered and evaluated along the Santa Clarita subsection included:

Sand Canyon Preliminary AA Alignment (Santa Clarita North)

The alignment through the Sand Canyon area included in the Preliminary AA Report is a single alignment, common to the SR 14 East and SR 14 West alternatives. It would emerge from a tunnel and cross the southern edge of the proposed Vista Canyon development. It would then pass through residential areas near Sand Canyon Road at-grade. It would cross Sand Canyon Road on viaduct and displace the Evangelical Free Church of the Canyons and residential parcels east of the road. **This option is recommended for further consideration.**

Sand Canyon River Option

An alignment that passes north of Sulphur Springs School and runs along the Santa Clara River to minimize residential impacts was investigated. The alignment is constrained by the need to avoid emerging into a trench in the bed of the Santa Clara River. Viaduct column foundations in the river bed would be needed. Because of greater potential for significant environmental impacts in many resource areas, particularly the residential and water resource impacts, without substantial reduction of other environmental impacts as compared to the other options, **this option is withdrawn from further consideration.**

Sand Canyon Metrolink Option (Santa Clarita South)

An option with the design speed reduced to 200mph in order to follow Metrolink more closely west of Sand Canyon Road was investigated. This emerges from a tunnel south of the Metrolink right-of-way, and then follows that right-of-way over Sand Canyon Road passing north of the Evangelical Free Church of the Canyons. **This option is recommended for further consideration.**

Palmdale Subsection

Two Alternative Alignments considered but rejected along the Palmdale subsection included:

- An alignment following the SR 14 median was suggested by stakeholders. To do this would require train speeds below 100mph, not meeting the project purpose and need of providing high-speed rail service.
- Joining the tunnels together to create an approximately 12-mile tunnel all the way through Acton was suggested by stakeholders. Tunneling is only considered when the topography of the ground makes it necessary or there is a significant impact which cannot be mitigated in any other way. The impacts from an at-grade/aerial option through Acton that cannot be mitigated by adjusting the alignment in plan are not sufficiently onerous to make this a reasonable option to consider.

Three Alternative Alignments considered and evaluated along the Palmdale subsection included:

Acton SR 14 East Option

The Preliminary AA SR 14 East alignment crossed the southern edge of the proposed Vasquez High School development about 75 feet from the nearest proposed school facilities, and was 600 feet from the High Desert school property in Acton. This alignment has been refined to avoid directly impacting the Vasquez High School property by moving it 600 ft from the

proposed school facilities and lowering it by 20 ft. In Palmdale, this option follows the Metro/UPRR right-of-way with a station at the Palmdale Transportation Center. **This option is recommended for further consideration.**

Acton SR 14 West Option

The Preliminary AA SR 14 West alignment in Acton is about 2850 ft from Vasquez High School, and was refined to avoid the Ward Road interchange bridge without additional direct residential impacts. In Palmdale this option is close to SR 14 and crosses mostly vacant land before joining the Metro/UPRR right-of-way near Avenue M. It has a station west of the existing Palmdale transportation Center near Avenue P. **This option is recommended for further consideration.**

Acton SR 14 E/W Hybrid Option

As requested by the community stakeholders, an option that followed the SR 14 West alignment up to the tunnel portal in Acton and entered Palmdale east of Palmdale Lake (similar to SR 14 East) was investigated. This option would have similar residential impacts in Acton to SR 14 West and an approximately 7 mile long tunnel with a 175 mph design speed, which results in a 20 second (less than 5%) journey time penalty. In Palmdale, this option follows the Metro/UPRR right-of-way with a station at the Palmdale Transportation Center. **This option is recommended for further consideration.**

<u>Staff Recommendations</u>

The alternatives evaluated in this Supplemental AA are recommended for further investigation as listed below:

Santa Clarita Subsection

- Preliminary AA option (renamed Santa Clarita North)
- Metrolink option (renamed Santa Clarita South)

Palmdale Subsection

- SR 14 East option
- SR 14 West option
- SR 14 E/W Hybrid option

Therefore, based on the Preliminary AA (July 2010), the first Supplemental AA (March 2011) and this second Supplemental AA (April 2012), the alternatives identified for further investigation in the EIR/EIS development process are:

- LAUS to Metrolink Central Maintenance Facility (CMF) subsection: LAPT1, LAPT3, and LAP1C
- Metrolink CMF to SR 2 subsection: HST following Metrolink alignment at-grade, and HST in tunnel
- SR 2 to Sylmar subsection alignment: Profiles A, B1, B2, and C, all with HST east of Metrolink
- SR 2 to Sylmar subsection stations: Buena Vista, Branford, and San Fernando
- Santa Clarita subsection: Santa Clarita North and Santa Clarita South.
- Palmdale subsection alignment: SR 14 East, SR 14 West, and SR 14 E/W Hybrid

- Palmdale subsection stations: Palmdale Transportation Center, and Palmdale West

Attachments

Figures SP-1 and SP-2

Palmdale to Los Angeles Supplemental AA Report dated April 2012

Resolution #12-16

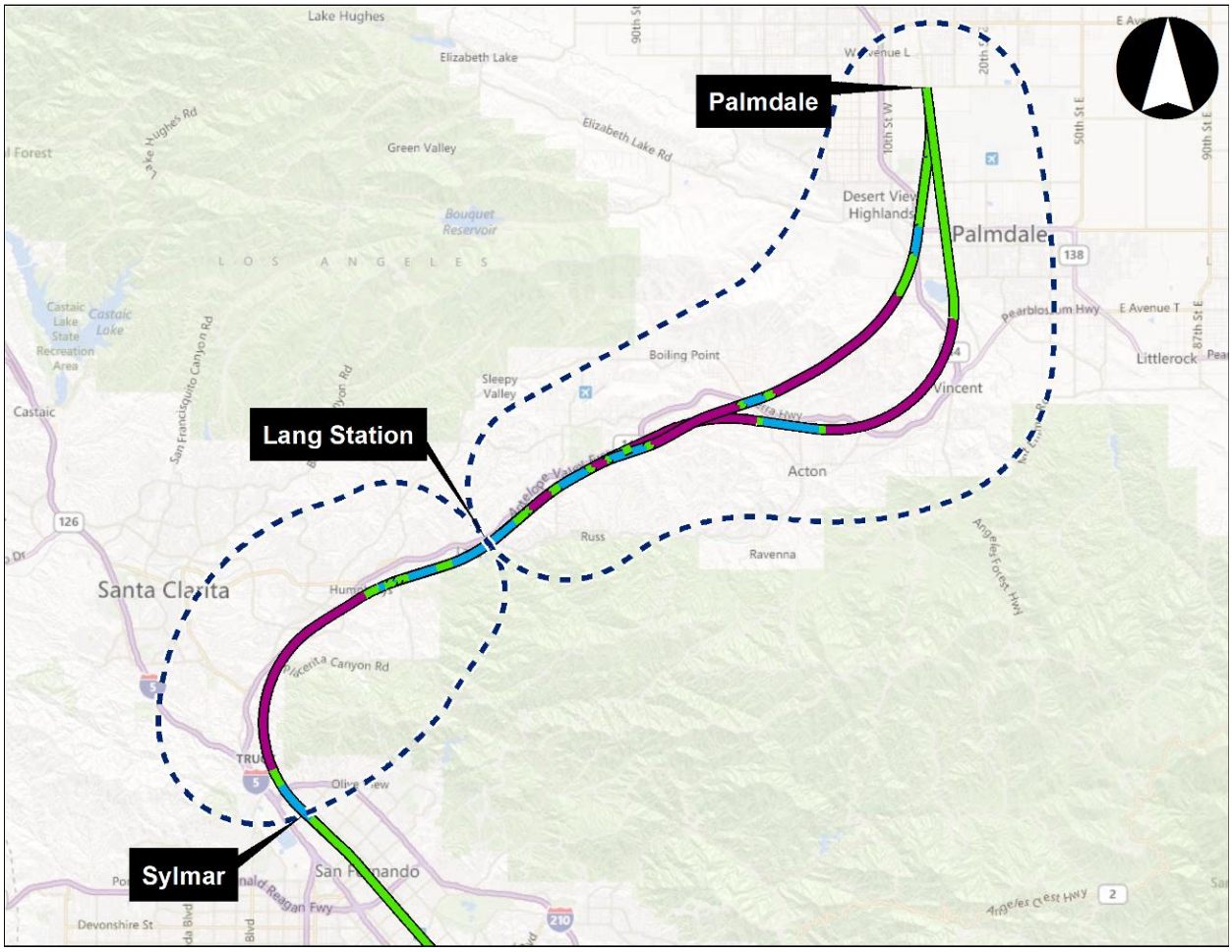

Figure SP-1: Sylmar to Palmdale Subsections

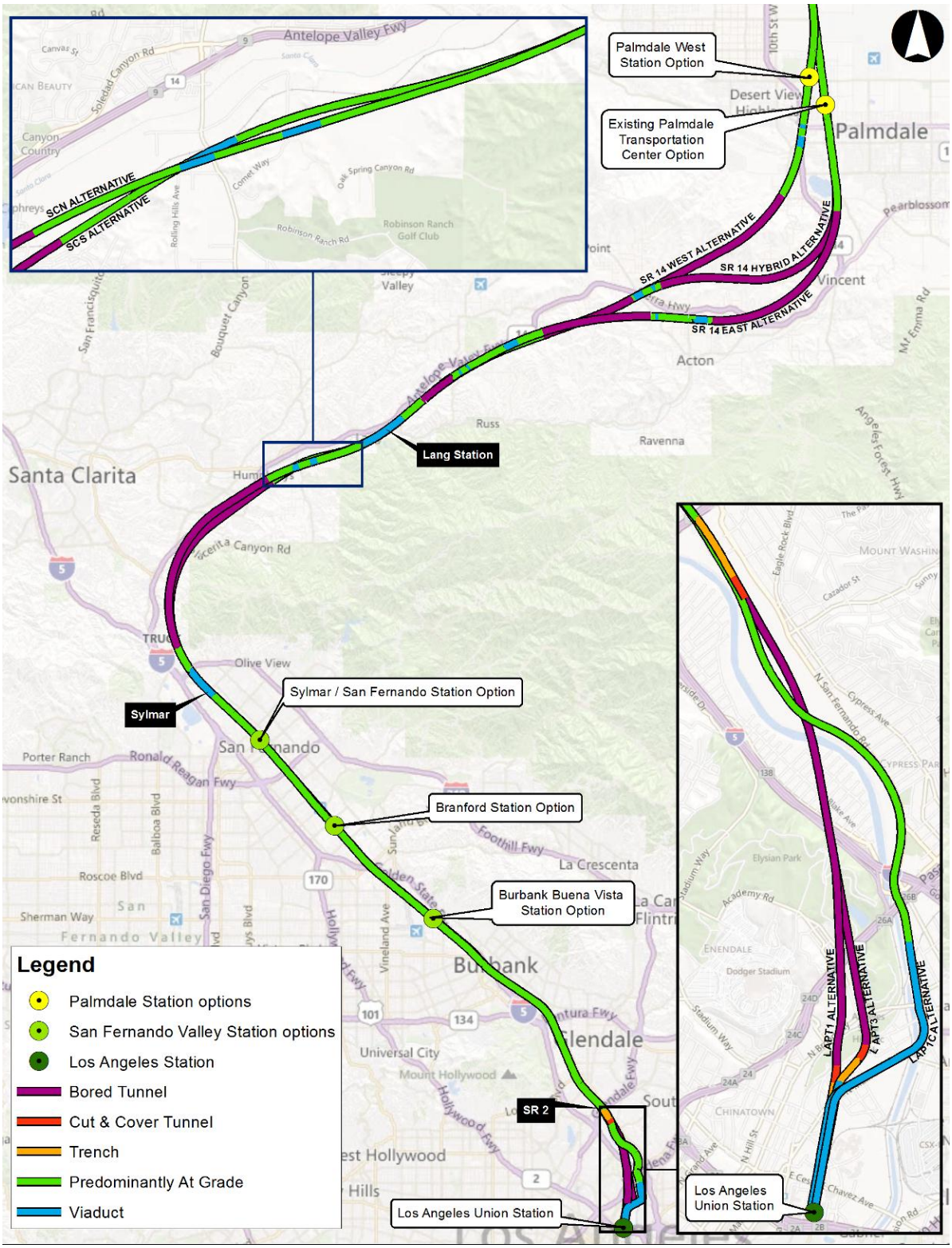

Figure SP-2: Sylmar to Palmdale Alignment Alternatives and Station Options